CURRICULUM VITAE

Name David J. FitzGerald

Current Position
Chief, Biotherapy Section
Laboratory of Molecular Biology
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Education

Trinity College, Dublin, Ireland	BA Mod	1977	Microbiology
U of Cincinnati, Col of Med, OH	PhD	1982	Microbiology

Employment

1982 - 1984	Staff Fellow, LMB, DCBDC, NCI, NIH
1985 - 1987	Senior Staff Fellow, LMB, DCBDC, NCI, NIH
1987 - 1994	Microbiologist, LMB, DCBDC, NCI, NIH
1994-present	Chief, Biotherapy Section, LMB, DBS, NCI, NIH

Honors

January 1980	Awarded the Albert J. Ryan Fellowship.
June 1991	NIH Director's Award
June 1992	Pierce Immunotoxin Award, at The Third International Immunotoxin Meeting, Orlando, FL.
July 1994	Chair, Gordon Conference, *Drug Carriers in Medicine & Biology.*
September 1995	NIH Award of Merit
February 1999	Awarded NCI Intramural Research Award (IRA)

Teaching Experience

Was invited to teach a two-week (September - October, 1988) course on immunotoxins at the Shanghai Institute of Biochemistry (joint U.S. National Academy of Science and Chinese Academy of Science program).

Editorial Boards

Infection and Immunity (1987-1989)
Journal of National Cancer Institute (1990-1994)
Journal of Pharmaceutical Sciences
Journal of Bioconjugate Chemistry (1990-1994)
Journal of Drug Targeting
Therapeutic Immunity
Journal of Biological Chemistry (1996-)

Peer Review Experience

Member of Study Section for Tropical Medicine and Parasitology, October 1986
Member of special study section to review toxin-based grant proposals, July 1988
American Cancer Society, Ad Hoc Reviewer for Immunotherapy Study Section, Spring 1991

Clinical Investigation

Co-investigator on FDA-approved protocol with PE-ANTI-TAC to treat patients with adult-T-cell leukemia, IND #BB IND 2174 (NSC 600665).

Co-investigator on FDA-approved protocol with OVB3-PE to treat patients with ovarian cancer, IND #IND2688 (NSC 615048).

Co-investigator on FDA-approved protocol with LMB-1 to treat patients with adenocarcinomas IND #5017 (NSC 651311).

Co-investigator on Phase I application for IND of immunotoxin directed to CD22+ leukemias and lymphomas (IND/NSC numbers not yet available).

Committee Experience

An original member and presently serving on NCI's "Technology Review Group". Responsible for reviewing all new invention reports and making strategic decisions about how to prosecute NCI's existing patent portfolio.

Societies

AAAS
American Society for Biochemistry and Molecular Biology

Patents

Pastan, I., Willingham, M.C., and FitzGerald, D.J.: *Pseudomonas* exotoxin conjugate immunotoxins. (Assignee: U.S.A., D.H.H.S.) (Filed January 26, 1984.) Granted U.S. Patent #4,545,985, October 8, 1985.

Pastan, I., FitzGerald, D.J.P., and Willingham, M.C.: Monoclonal antibody against ovarian cancer cells (OVB3). Patent #4,806,494, February 21, 1989.

Pastan, I., Adhya, S., and FitzGerald, D.J.P.: Recombinant *Pseudomonas* exotoxin: Construction of an active immunotoxin with low side effects. Patent #4,892,827, January 9, 1990.

Bjorn, M.J., FitzGerald,D.J., Frankel, A.E.,Laird, W.J., Pastan,

I.H., Ring, D.B., Willingham, M. C., and Windelhake, J. L.: Anti-human ovarian cancer immunotoxins and methods of use thereof. (Assignee: Cetus Corporation) (Filed July 6, 1987.) Granted U.S. Patent #4,958,009, September 18, 1990.

Pastan, I., FitzGerald, D., and Ogata, M.: Selectively cytotoxic IL-4-PE40 fusion protein. (Assignee: U.S.A., D.H.H.S.) (Filed May 12, 1989.) Granted U.S. Patent #5,082,927, January 21, 1992.

Berger, E.A., Fuerst, T.R., Pastan, I., FitzGerald, D., Mizukami, T., and Chaudhary, V.K.: CD-4/cytotoxic gene fusions. Patent #5,206,353, (Assignee: U.S.A., D.H.H.S.) (Filed July 22, 1988.) Granted U.S. Patent #5,206,353, April 27, 1993.

Pastan, I.H., Trevor, P., FitzGerald, D.J., Debinski, W., and Siegall, C.: Recombinant chimeric proteins deliverable across ellular membranes into cytosol of target cells. (Assignee: U.S.A., D.H.H.S.) (Filed March 4, 1991.) Granted U.S. Patent #5,328,984, July 12, 1994.

Berger, E.A., Moss, B., Fuerst, T.R., Pastan, I., FitzGerald, D., Mizukami, T., and Chaudhary, V.K.: Cytotoxic agent against specific virus infection. (Assignee: U.S.A.) (Filed February 25, 1993.) Granted U.S. Patent #5,428,143, June 27, 1995.

Pastan, I., Chaudhary, V.K., and FitzGerald, D.: P. exotoxin fusion proteins have COOH-terminal alterations which increase cytotoxicity. (Assignee: U.S.A., D.H.H.S.) (Filed May 14, 1990.) Granted U.S. Patent #5,458,878, October 17, 1995.

Pastan, I., FitzGerald, D., and Chaudhary, V.K.: Pseudomonas exotoxins (PE) and conjugates thereof having lower animal toxicity with high cytocidal activity through substitution of positively charged amino acids. (Assignee: U.S.A., D.H.H.S.) (Filed October 1, 1993.) Granted U.S. Patent #5,512,658, April 30, 1996.

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2. FitzGerald, D.J.P., Morris, R.E., and Saelinger, C.B.: The essential role of calcium in cellular internalization of *Pseudomonas* toxin. *Infect. Immun.* 35: 715-720, 1982.

3. FitzGerald, D.J.P., Padmanabhan, R., Pastan, I., and Willingham, M.C.: Adenovirus-induced release of epidermal growth factor and *Pseudomonas* toxin into the cytosol of KB cells during receptor-mediated endocytosis. *Cell* 32: 607-617, 1983.

4. FitzGerald, D.J.P., Trowbridge, I.S., Pastan, I., and Willingham, M.C.: Enhancement of toxicity of antitransferrin receptor antibody *Pseudomonas* exotoxin conjugates by adenovirus. *Proc. Natl. Acad. Sci. USA* 80: 4134-4138, 1983.

5. Willingham, M.C., Haigler, H.T., FitzGerald, D.J.P., Gallo, M.G., Rutherford, A.V., and Pastan, I.: The morphologic pathway of binding and internalization of epidermal growth factor in cultured cells. *Exp. Cell Res.* 146: 163-175, 1983.

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8. FitzGerald, D.J.P., Waldmann, T.A., Pastan, I., and Willingham, M.C.: PE-anti-Tac: a cell-specific immunotoxin active against cells expressing the human T-cell growth factor receptor. *J. Clin. Invest.* 74: 966-971, 1984.

9. Seth, P., FitzGerald, D.J.P., Willingham, M.C., and Pastan, I.: Role of a low pH environment in adenovirus enhancement of the toxicity of a *Pseudomonas* exotoxin epidermal growth factor conjugate. *J. Virol.* 51: 650-655, 1984.

10. Akiyama, S., Gottesman, M.M., Hanover, J.A., FitzGerald, D.J.P., Willingham, M.C., and Pastan, I.: Verapamil enhances the toxicity of an epidermal growth factor *Pseudomonas* exotoxin conjugate. *J. Cell Physiol.* 120: 271-279, 1984.

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16. Zoon, K.C., Arnheiter, H., Zur Nedden, D., FitzGerald, D.J., and Willingham, M.C.: Procedures for measuring receptor-mediated binding and internalization of human interferon. In *Methods of Enzymology* 119: 332-339, 1986.

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Proc. Natl. Acad. Sci. USA 87: 8889-8893,1990.

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